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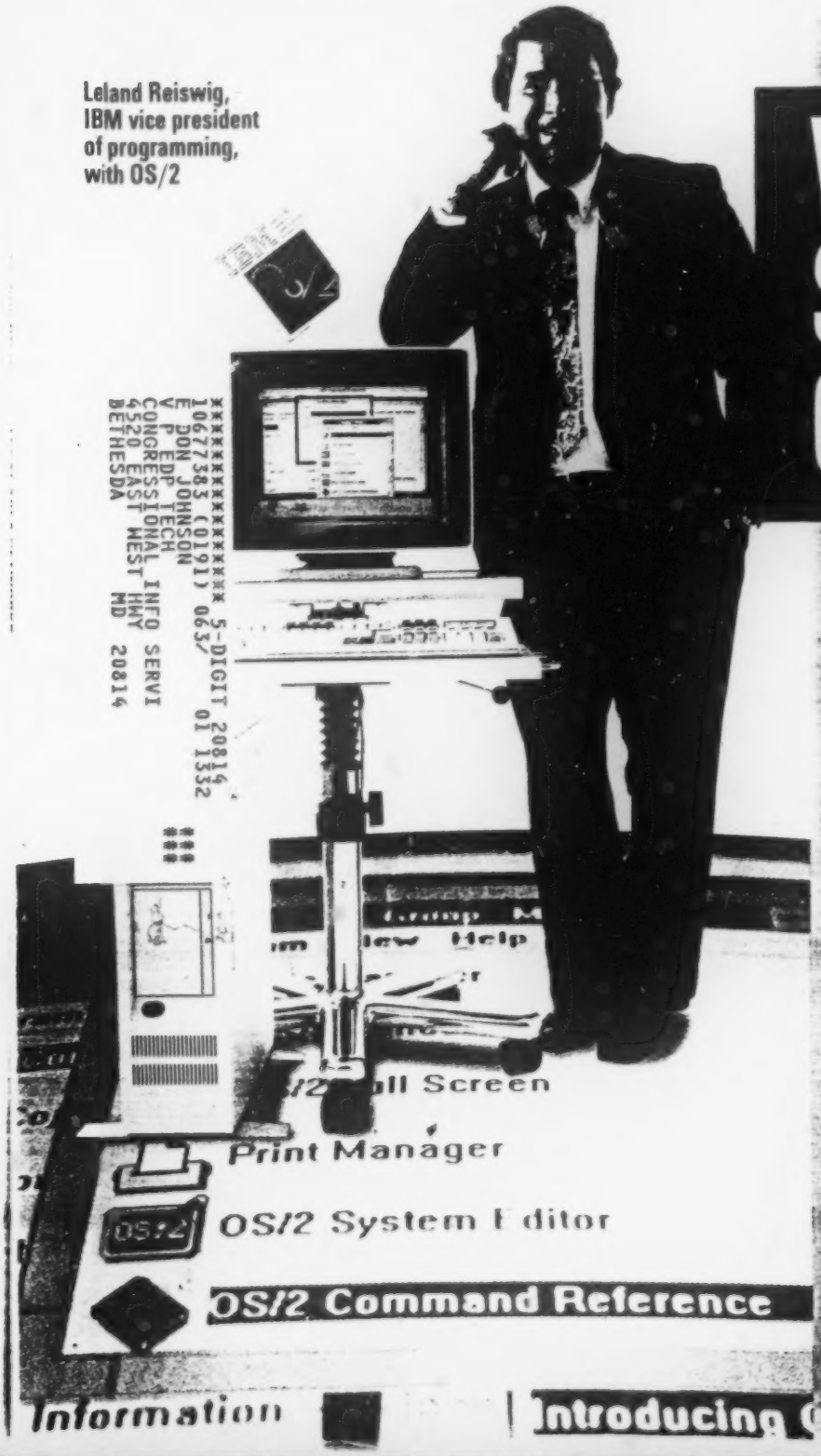
A CAHNERS PUBLICATION

DATAMATION

FOR MANAGERS OF INFORMATION TECHNOLOGY WORLDWIDE

JANUARY 15, 1991



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DATAMATION

FOR MANAGERS OF INFORMATION TECHNOLOGY WORLDWIDE

VOLUME 37
NUMBER 2

As OS/2 gains in power and performance, it is moving more solidly into the role users already have defined for it: a platform for internally developed, business-critical applications.

COVER STORY

OPERATING SYSTEMS

Where IS Stands On OS/2 30

BY JEFF MOAD Those looking for new productivity packages will find that OS/2 is in for a long winter's nap. But IS managers working on tomorrow's corporate code are convinced that OS/2 will prevail.

Cover photography by Alan Orling/Black Star

SPECIAL REPORT

COMDEX

What's Best For IS From COMDEX 98

BY DATAMATION STAFF Back from Las Vegas, the DATAMATION editorial staff places COMDEX in perspective by highlighting the most interesting new products to strut their stuff at the world's largest computer show.

PRODUCT GUIDE

FEATURE

Microsoft Makes It Easier To Excel 89

BY MIKE RICCIUTI Excel—Microsoft's spreadsheet for Windows, OS/2 and the Macintosh—gives number crunchers power and flexibility in an easy-to-use package.

Hank Vigil says Excel 3.0 offers flexibility and easy-to-use power.

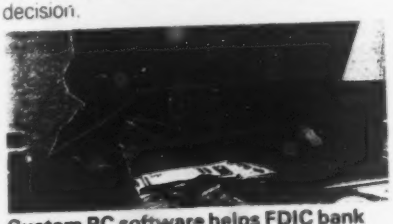
FEATURES

PCs & WORKSTATIONS

PORTABLES

What's Hot In Laptop Software 43

BY BOB FRANCIS Companies routinely earmark thousands of dollars for portable PC hardware. But deciding what software to use with these mighty miniatures is an equally important part of the buying decision.



Custom PC software helps FDIC bank examiners check the accuracy of financial data.

NETWORKS

PACKET SWITCHES

The Latest In High-Speed Protocols 48

BY TOM McCUSKER Networks that use high-speed backbone lines to combine data with voice, image or other applications can benefit from this high-throughput communications protocol.

WIDE AREA NETWORKS

Frito-Lay's Network Recipe 57

BY BOB FRANCIS Mix 240 LANs with high-end PCs, super servers and OS/2 applications; stir with satellites; bake in central mainframes and out comes a corporate network that's broad yet centrally managed.

SOFTWARE

EIS

EIS Prices Finally Get Real 65

BY DAVID STAMPS Vendors of mainframe-based executive information systems are finally smartening up. They're moving EIS downscale to run on PCs and Macs, and they're finally pulling prices down.

PROJECT MANAGEMENT

Tools To Manage Big Projects 71

BY TOM McCUSKER Juggling too many oversized application development projects? Try the latest project management software. Some can even take charge of your CASE tools and hook them into the best methodologies.

SYSTEMS

PRINT SERVERS

Xerox's Enterprisewide Printer 79

BY JEFF MOAD Xerox is combining copier, printer and, in the not-too-distant future, networking technology to be first out with an integrated print server.

DEC

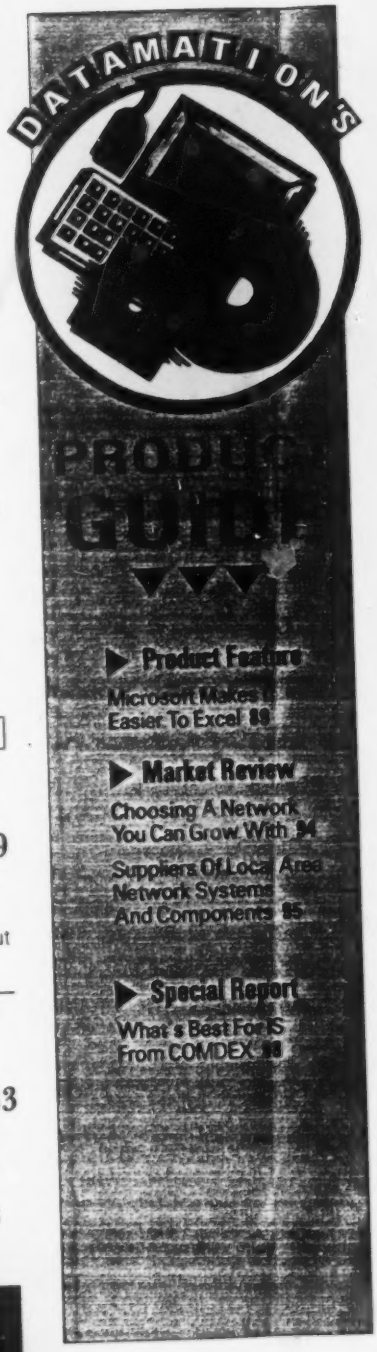
Digital Nudges Open The Doors To VMS 83

BY TED BUNKER Digital's ULTRIX didn't satisfy users hungry for application portability and commercial power. So Digital is adding POSIX and XPG3 to VMS in order to cook up a robust solution.

Pilot's Friend steers a course for EIS affordability, page 65.

Xerox Execs Lowe and Hicks move into a new world of digitized information, page 79.

Digital's Olsen answers the call for open systems, page 84.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INSIDE DATAMATION

OS/2 Is Just Where It Should Be

Maybe Bill Gates was right after all when he said that compared with DOS any other operating system could be viewed as an also-ran. What he was talking about, of course, was OS/2, the PC operating system that was originally touted as the successor to DOS for new generations of increasingly powerful hardware. As the installed base of DOS reaches toward 40 million, fair comparisons with other technologies are tough. It's like IBM; How do you compare other computer companies fairly with IBM? The answer: very carefully.

Now this may come as a surprise, but there really should not be any surprise over PC users' allegedly slow acceptance of OS/2—at least not for people with a computer-industry perspective longer than a few years. The reality is that there is much precedence for what has happened to OS/2. It's the same phenomenon that occurs anytime a system achieves widespread installation. Once the technology's in place and running, over time it gets harder to change. We at DATAMATION call this the Inertia Factor. Talk to shops running DOS/VSE, MVS, GCOS or OS/1100, to name but some venerable operating systems, to find out the true meaning of the term.

MOAD tests the strenghth of OS/2

Nevertheless, OS/2, with more than 200,000 installations, is anything but a stepchild or an also-ran. According to our cover story this issue, "Where IS Stands On OS/2," page 30, the operating system has a different role to play than its older brother. Says senior writer Jeff Moad, "Users expect that versions of most major shrink-wrapped applications now available on DOS and Windows will be offered for OS/2, probably by 1993. But, for now, many see OS/2's strengths—preemptive multitasking, large memory space, strong interprocess communications, good security—as being best suited to complex custom applications that often involve moving some mainframe processing to PCs and local area networks. . . .

"Now, despite all the recent talk of a rift between IBM and Microsoft, the two OS/2 partners have finally come to a fundamental agreement on at least one point: the PC market is a multiplatform market, and the split is defined by the functional needs of users."

And herein lies the challenge for IS managers, who, for strategic reasons, may be warming up to OS/2. Many of your clients in end-user computing won't easily relax their embrace of DOS, nor should they. It's up to you to defuse the potentially difficult political situation that may occur as OS/2 is introduced in your organization. Acceptance of a multiplatform world and coexistence of different systems is the practical strategy.

The Best Of COMDEX

Our Special Report this issue, "What's Best For IS From COMDEX," page 98, should tell you all you need to know about significant new products introduced at the COMDEX trade show in November. From notebook PCs, laptops and Windows applications to 486-based servers, multiprocessor machines and optical storage devices, what has become the industry's premier computer show had much to offer.

To cover the 1,850 exhibitors and thousands of new products, we assembled a team of DATAMATION editors and writers to sift out for you the products of most relevance to IS managers. We hope you find this report both comprehensive and fascinating.

David R. Brousell, Editor

Coming Next Issue

- Santa Cruz Operation's UNIX in perspective
- Can IBM reposition the mainframe?
- A look at Digital Research's DR DOS

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MARKET INSIGHTS

AN ANALYSIS OF ECONOMIC TRENDS

Expansion Is Around The Corner

BY MADELINE FRANCHI
Cahners Economics

Despite continued uncertainties raised by Iraq's invasion of Kuwait, we expect the U.S. industrial market to experience a mild expansion during the latter half of this year. And the computer industry will figure strongly in the turnaround.

During recent months, manufacturers' new, lean inventory policies, combined with strong international competitiveness, have helped to moderate the industrial slowdown. With inventories consistently at historically low levels, any pickup in demand for goods will translate into increases in factory production.

And in an ongoing effort to maintain global competition, U.S. factories continue to increase spending on new plants and equipment. Cahners Economics forecasts new plant and equipment spending by U.S. manufacturers will grow by 2.4% in 1991 and 4.6% in 1992.

Although that's significantly less than the 11% average annual gains of the prior three years, it's still stronger than the 10% drop recorded during 1986.

These increases in equipment spending will help maintain a strong IS industry this year, too; about one-third of all U.S. investment in capital equipment is for information processing and related equipment. According to DATAMATION's 1990 survey of U.S. firms' intentions to purchase mini and microcomputers, conducted with the Boston based securities house Cowen & Co., the manufacturing sector remains a big purchaser of information technology, in general, and of PC hardware and software in particular.

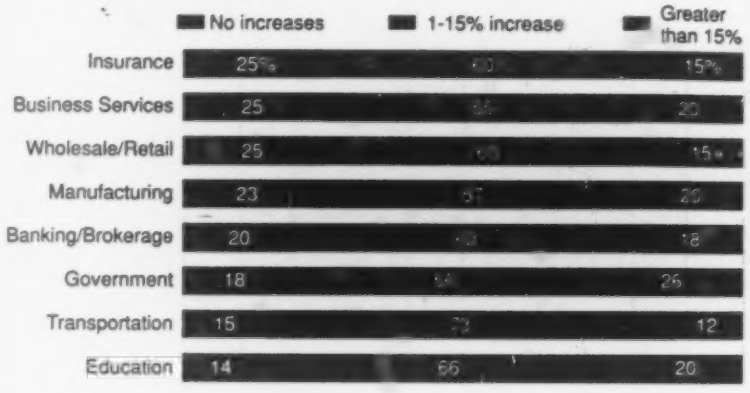
The survey found that, over the following 12 months, the manufacturing sector was expected to account for almost 27% of PC purchases in the United States. Over the next three to five years, 23% of the manufacturing sites predict they will increase their PC hardware and software spending by 15% or more.

For more information on Cahners Economics's forecasting services, phone Dan Buchanan at (617)-630-2105, fax him at (617)-630-2100 or write to him at Cahners Economics, 275 Washington Street, Newton, MA 02158.

No Recession For PC Expenditures

Despite concerns over a slowing economy, private sector spending on PCs will remain strong over the next three to five years.

PC PURCHASING PLANS FOR THE NEXT THREE TO FIVE YEARS



Source: DATAMATION, Cowen & Co.

The Economy At A Glance

U.S. Economy: Macroeconomic And Industrial Indicators

	Actual		Forecast (Annual % growth)		
	Q2/90	Q3/90	1990	1991	1992
Gross National Product	0.4	1.7	1.1	0.9	3.1
Business Investment In Equipment	-3.3	10.1	2.3	2.4	4.6
Government Spending	6.2	0.6	2.4	0.5	0.8
Consumer Spending	0.2	3.2	1.2	0.6	2.5
Exports	-5.0	4.3	5.3	3.1	5.4
Imports	0.7	4.3	3.3	2.2	2.7

All calculations are % change in 1982 dollars; quarterly figures are seasonally adjusted annual rates.

	Sept.	August	% Change 9/90-8/90	Sept. 1989	% Change 1990-1989
Manufacturing Production (1)					
Process Industries Total	110.3	110.3	0.0	107.1	3.0
Chemicals	112.0	111.2	0.7	107.5	4.2
Petroleum	110.5	109.6	0.8	108.7	1.7
OEM Total	115.6	114.9	0.6	112.8	2.5
Computers & Peripherals	154.1	154.4	-0.2	141.8	8.7
Communication Equipment	110.7	110.9	-0.2	107.2	3.3
Transportation Equipment	110.7	107.6	2.9	108.0	2.5
Services Employment (2)					
Finance, Insurance, Real Estate	6.862	6.937	-1.1	6.764	1.4
Health Care	8.233	8.216	0.2	7.647	7.7
Computer & Data Processing	0.808	0.808	0.0	0.755	7.0
Transportation/Utilities	5.914	5.851	1.1	5.700	3.8
Retail Trade	19.872	19.965	-0.5	19.681	1.0
Wholesale Trade	6.379	6.409	-0.5	6.315	1.0
Government	18.024	17.157	5.1	17.612	2.3

(1) Index 1978=100, seasonally adjusted
(2) Millions of persons, not seasonally adjusted

Source: Commerce Dept. and Cahners Economics

MARKET INSIGHTS

A SURVEY OF TECHNOLOGY TRENDS

Users Want Better Network Controls

BY WARREN CHILDS
Business Research Group

Networks in most large companies today are a loose confederation of multiplatform systems managed by a wide variety of local network management software. But IS managers are increasingly demanding software that can control all of these systems from a central point.

The latest survey of the DATAMATION Technology Panel shows that 27% have already implemented integrated network management systems. An additional 13% plan to implement such a system within the next 24 months, 7% expect to do so at some undetermined time and 21% say they are actively evaluating such systems.

First on most users' vendor list for integrated network management systems, is IBM's NetView. A strong 55% of our panel members are considering NetView among their network management choices. Big Blue is committed to shipping a release of NetView 2.0 that will allow NetView to integrate management of non-IBM LU6.2 networks by September 1991.

Second on panel members' lists is AT&T's Unified Network Management Architecture (UNMA), under consideration by 37%. UNMA is a group of products in AT&T's Accumaster family.

Nearly a quarter of panel members—21%—are evaluating Digital Equipment Corp.'s Enterprise Management Architecture (EMA). Still largely incomplete, EMA will take charge of other vendors' network management systems through Digital's Management Control Center.

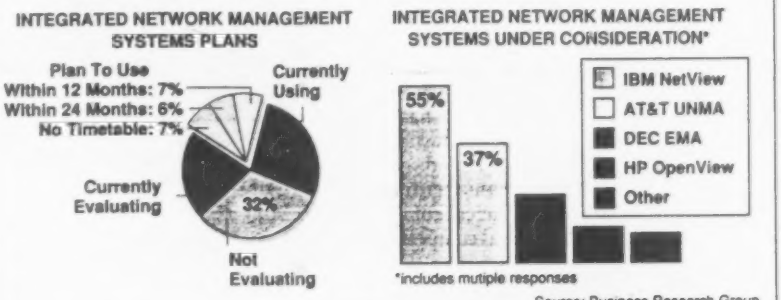
Only 11% of our panel are considering Hewlett-Packard Co.'s OpenView. OpenView is designed to operate with Open Systems Interconnection (OSI) networks. ▭

For more information, call Nancy Finn at (617)-964-6204, fax her at (617)-558-4402 or write to her at Business Research Group, 275 Washington Street, Newton, MA 02158.

What Do We Want? Integrate Now!

Users are marching for integrated network management systems...

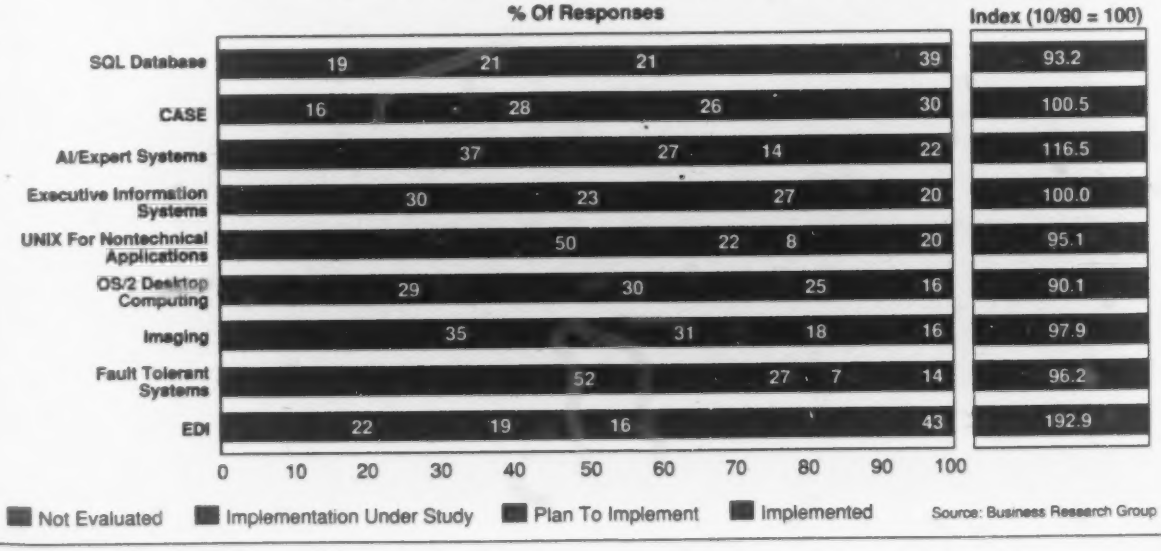
And IBM is leading the parade.



Source: Business Research Group

DATAMATION's Technology Implementation Index: Systems And Software

DATAMATION each month surveys a select group of its readers–the DATAMATION Technology Panel–to investigate the implementation of new technologies by key user organizations.


% Of Responses
Index (10/90 = 100)
SQL Database 19 21 21 39 93.2
CASE 16 28 26 30 100.5
AI/Expert Systems 37 27 14 22 116.5
Executive Information Systems 30 23 27 20 100.0
UNIX For Nontechnical Applications 50 22 8 20 95.1
OS/2 Desktop Computing 29 30 25 16 90.1
Imaging 35 31 18 16 97.9
Fault Tolerant Systems 52 27 7 14 96.2
EDI 22 19 16 43 192.9
0 10 20 30 40 50 60 70 80 90 100
Not Evaluated
Implementation Under Study
Plan To Implement
Implemented

Source: Business Research Group